

**Remarks**

Applicant respectfully requests favorable reconsideration of this application in view of the following remarks.

In this latest, Final Office Action, the Office has rejected all pending claims, claims 1-39, over the same prior art asserted in the previous Office Action and has asserted that Applicant's previous arguments were unpersuasive. Specifically, the Office rejected claims of 1-9 and 11-39 as unpatentable over Kimura in view of Ladden. The only other claim, claim 10, is rejected as unpatentable over Kimura and Ladden in further view of Puthuff.

Since the rejections are basically the same as in the prior Office Action and Applicant already has addressed those rejections directly in its response to that prior Office Action, Applicant will focus directly on the Office's Response to Arguments section of the Final Office Action.

Particularly, Applicant's arguments in the previous response can be considered to comprise four main points. These points, the Office's responses thereto, and Applicant's reply arguments are provided below:

**1. Improper Hindsight Reconstruction**

The Examiner has used improper hindsight reconstruction in combining Kimura and Ladden by asserting a motivation for the combination taken directly from Applicant's own disclosure.

The Office countered that it did not find the motivation for the combination in Applicant's disclosure, but in Ladden itself.

The portion of Ladden that the Office refers to as disclosing this motivation, namely, column 1, lines 12-20, actually contains absolutely nothing addressing where to place the speech recognition equipment. However, it does reveal the fundamental misunderstanding by the Office of the Ladden reference that runs throughout the rejections and that has lead the Office to the improper rejections of the claims. Particularly, the section of Ladden that the Office refers to as supporting this alleged motivation, i.e., column 1, lines 12-20, states:

“Current state-of-the-art coders/decoders, commonly called codecs, are designed to reproduce human speech for optimum human listening quality. Typically, these codecs are implemented in wireless communication systems requiring such optimum human listening quality. These codecs, however, do not optimally code speech for use by speech recognition equipment.” Col. 1,lines 12-18.

The fact that the Office thinks this paragraph concerns the location of speech recognition equipment makes clear that the Office thinks that a codec is or inherently includes speech recognition equipment.

This is not accurate. A codec is a coder/decoder. The definition of codec from search networking.com, for instance, is:

In communications engineering, the term codec is used in reference to integrated circuits or chips that perform data conversion. In this context, the term is an acronym for coder/decoder. This type of codec combines analog-to-digital conversion and digital-to-analog conversion functions in a single chip. In personal and business computing applications, the most common use for such a device is in a modem.

A codec has nothing to do with speech recognition. The very section of Ladden referred to by the Office clearly stated that the codec does not contain speech recognition equipment. Specifically, it says that the output of the codec is

used by the speech recognition equipment. It is not the speech recognition equipment itself.

Ladden discloses a system using two codecs, one optimized for human listening quality and one optimized for input to a speech recognition system, and a way to switch between the two based on the situation.

In addition, the alleged motivation still would not make any sense even if a codec included speech recognition equipment. Column 1, lines 12 to 20 of Ladden simply does not say anything that even remotely suggests where to put the codec, except "in wireless communication systems". This is virtually meaningless.

Finally, despite the Office's assertion, the Office's alleged motivation of "it would advantageously use a more powerful speech recognition algorithm located at the base/local station rather than a less than ideal codec that is located at the wireless device" (or anything even remotely resembling such an assertion) does not appear in Ladden. It is basically a paraphrasing of Applicant's application page 1, last paragraph to page 2 first paragraph, except reworded to apply to a communications network, as in Ladden, as opposed to a remote control for a household appliance.

## **2. Non-Analogous Arts**

Ladden is in a non-analogous art from Kimura and the present invention. Particularly, Ladden relates to wireless communications networks, whereas

Kimura and the present invention relate to remote controls for household appliances.

The Examiner asserts that Kimura and Ladden are in analogous arts, the art being voice recognition and the storage and execution of voice recognition algorithms, and as such, are analogous art in the realm of speech recognition processes.

Applicant respectfully disagrees. A reference is not in the art of speech recognition simply because it happens to have a speech recognition system in it. There is little discussion of the speech recognition system in Ladden other than the fact that there is one in the network. Ladden is a reference about codecs in communications networks. The invention of Ladden and the entire subject matter of Ladden has to do with switching between two codecs in a network environment, one optimized for human speech quality and another optimized for speech recognition systems.

Ladden does not suggest anything to the skilled artisan about where to place the speech recognition system in a remote control and household appliance situation. In Ladden's telephone network in which the purpose of the speech recognition equipment is to permit remote access by voice command to features available on the network (col. 1, lines 41-46), of course the speech recognition equipment is in the network. This way one can call in on any telephone and access those functions. This aspect of Ladden contains absolutely no teaching with respect to where to put the speech recognition equipment in the completely different environment of a remote control for a

household appliance, in which none of the motivations relevant to telephone networks would be applicable.

In fact, if anything, Ladden teaches away from the present invention because it teaches placing the speech recognition equipment where it can be shared by multiple users, i.e., in the network. In the case of remote controls, however, such a teaching would lead one to the opposite conclusion than the one asserted by the Office. Specifically, it is common for a single remote control unit to operate multiple appliances, but it is essentially unheard of to have an appliance that can be controlled by multiple remote control units. Thus, combining the logical teaching of Ladden with Kimura would result in placing the speech recognition equipment in the remote control unit so that it could be used to control multiple appliances, rather than placing it in the appliance. Certainly, placing the speech recognition equipment in the appliance permits the appliance to be controlled by multiple remote control units. However, no one is interested in that. Everyone is interested in the opposite.

### **3. Ladden Does Not Teach That For Which It Has Been Cited**

Ladden does not teach that for which it has been cited, i.e., moving the speech recognition processing equipment from the remote device to the controlled device. Rather, it discloses a system in which the speech recognition equipment is in the network.

The Office countered that “the remote unit of Ladden (codecs A&B) form an initial speech recognition process, and when warranted, transfers the parameters to the base unit for further processing. In other words, the Ladden reference teaches having speech recognition/feature processing in the remote unit, and transferring these parameters for further processing to the base station”.

Applicant respectfully traverses. First and foremost, this argument actually proffers a conclusion that is the exact opposite of what the Office is attempting to establish. That is, assuming the Office’s assertions above are correct and that Ladden teaches “having speech recognition/feature processing in the remote unit”, then Ladden would actually teach the exact opposite of what the Office has cited it as teaching. Specifically, the Office is asserting that Ladden teaches placing the speech recognition equipment in the remote unit, whereas Applicant is claiming that the speech recognition equipment is removed from the remote unit to the controlled device.

Furthermore and in any event, the Office’s argument simply does not address the issue at hand. Whether or not Ladden does some initial speech recognition in the remote unit (which it does not, in any event) has nothing to do with where the speech recognition equipment that is not in the remote unit is located. Thus, even if the Examiner’s assertion that part of the speech recognition system is in the remote unit were true, the other part of it still is in the network, and not in the controlled device. Accordingly, Ladden does not teach what it has been cited as teaching.

Furthermore, and more fundamentally, the portion of Ladden that the Office relies upon does not even disclose what the Office asserts. Specifically, Ladden does not teach that part of the speech recognition system is in the remote unit. The Office's misunderstanding stems from the same fundamental problem addressed above in section 1 of this Response. Particularly, the Office believes that a codec performs speech recognition. However, a codec does not perform speech recognition. A codec fundamentally is nothing more than an analog-to-digital converter and a digital-to-analog converter combined.

#### **4. The Dependent Claims Add Even Further Distinctions**

Applicant also argued numerous additional distinctions of the dependent claims over the prior art of record. In short, Applicant argued the following.

**a.** Claims 4 and 6 recite "a recorder that records said electrical signal" (4) and that "the recorder is located in the controlled device" (6), wherein "said electrical signal" comprises "convert[ed] sound of an audio voice command" (claim 1). The Office asserted that this is found in Kimura, Figure 6, sub-block 23a. However, sub-block 23A does not record an electrical signal that comprises converted sound of an audio voice command. Sub-block 23A is a memory for storing standard pattern data for speech recognition (col. 5, lines 12-20).

**b.** Claims 5, 21, and 35 recite that the recorder is located in the remote device. The Office asserted that Ladden teaches that "the remote codec

contains speech processing capabilities" at column 3, lines 43-60. However, a codec is not a recorder.

- c. Claims 7-9, 22–24, and 36 recite that (1) the remote includes a repeat button wherein the recorder is activated to reproduce a last recorded electrical signal for transmission to the controlled device responsive to the repeat button being pressed (7, 22, 36), (2) a record button wherein the recorder is activated by the record button (8, 23), and (3) the recorder is voice-activated (9, 24). The Office asserted that this is found in Kimura, col. 4, l. 45 - col. 5, l. 15, but, this passage does not discuss buttons or recording of the electrical signals. It is simply irrelevant.
- d. Claim 11 recites a second controlled device having a recognition processor. The Office asserted that this is found in Kimura, Figure 11, sub-block 23b. However, sub-block 23b is part of the remote control unit, and not part of any controlled device.
- e. Claims 12, 26, and 27 recite that the first controlled device further comprises a transmitter for generating and transmitting a second electrical signal to a second controlled device (12 and 26) and that the second controlled device converts the received signals into a second set of pattern data (27). The Office asserted that this is found in Kimura, Figure 11, sub-block 24. However, sub-

block 24 is just an interface unit and is in the remote control anyway, not a controlled device; and

f. Claims 14, 15, 29, 30, and 32-34 recite that the controlled device(s) transmit control signals (i.e., the electronic signals for the function to be performed that are generated by the controlled device after the voice command has been processed by the speech recognition software to identify the command)to further controlled devices. The Office asserted that this is found in Kimura, column 1, lines 5-10. However, this states only that the remote unit controls multiple devices. It contains no disclosure as to how.

The Office did not respond any of these arguments, except the first one pertaining to claims 4 and 6. Hence, regardless of all of the discussion above of the independent claims, the Office should allow at least dependent claims 5, 7-9, 11, 12, 14, 15, 21-24, 26, 27, 29, 30, and 32-36.

With respect to claims 4 and 6, the Office argued that “record functions are well-known in AV devices, and that the control signals by Kimura represents audio/visual functions, such as recording...”.

Applicant respectfully traverses. The issue is not whether recording functions are known in A/V devices. The issue is whether a recorder is known (in the controlled device in the case of claim 6) “that records said electrical signal” wherein “said electrical signal” comes from the remote control device and constitutes “convert[ed] sound of an audio voice command” as defined in claim 1.

The assertion that recording functions exist in A/V devices simply does not address the issue. Applicant does not dispute that there are A/V devices that record audio, but disputes that the prior art teaches recording electrical signals that constitute converted audio transmitted from a remote control unit. The Office does not even assert, let alone establish, that this is found in the prior art of record.

### **Conclusion**

In view of the foregoing remarks, this application is now in condition for allowance. Applicant respectfully requests the Office to issue a Notice of Allowance at the earliest possible date. The Examiner is invited to contact Applicant's undersigned counsel by telephone call in order to further the prosecution of this case in any way.

Respectfully submitted,

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/Theodore Naccarella/  
Theodore Naccarella, Reg. No. 33,023  
Synnestvedt & Lechner LLP  
1101 Market Street; Suite 2600  
Philadelphia, PA 19107-2950  
Telephone: (215) 923-4466  
Facsimile: (215) 923-2189  
Attorneys for Applicant

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